APPENDIX

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Dake *et al.*	Group Art Unit:	2116
Serial No.:	10/606,059	Examiner:	Patel, Anand B.
Filed:	06/25/2003	Attorney Docket:	RPS9 2003 0045 US1
For:	RESTORING POWER IN A HOT SWAPPABLE MULTI-SERVER DATA PROCESSING ENVIRONMENT		

I, the undersigned Joseph P. Lally, hereby certify that this document is being facsimile transmitted to the USPTO or deposited with the US Postal Service with sufficient postage as first class mail in an envelope addressed to: MAIL STOP AMENDMENTS, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

6/20/06
Date

Signature

AFFIDAVIT UNDER 37 CFR § 1.131

MAIL STOP AMENDMENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

I, the undersigned inventor, having been admonished that willful false statements and the like are punishable by fine, imprisonment, or both (18 U.S.C. § 1001) and may jeopardize the validity of the application or any patent issuing thereon, declare as follows:

I am an inventor of an invention disclosed in the above captioned patent application [the Application]. As indicated in the document attached hereto as Exhibit "A" entitled *Disclosure RPS8-2002-0476 (BC + Method of Handling Hot-Swap and Cold-Start of Service Processor Minimizing Disruption to Chassis Operation)* [the Disclosure], my co-inventors and I conceived of a system and method for enabling a management module to consult stored power state information following a power transition and to restore power to server modules and switch modules, also referred to as interconnection modules and interconnect modules, based on the power state information, for example, based on whether the power transition was indicative of a "cold start" or a "hot swap." The Disclosure also describes querying modules that were not previously powered on to determine their respective fabric types, also referred to as communication protocols (e.g., optical, Fibre Channel, Ethernet, serial). The Disclosure

correctly indicates (Page 5, Question #2) that the invention had been implemented (e.g., a prototype had been made) or that the invention was otherwise shown to be workable as of the date the Disclosure was created.

The Disclosure itself was created by inventor Franke on November 18, 2002 and submitted to an IBM patent review committee on November 22, 2002. The Disclosure was rated for filing and sent to a law firm for preparation as a patent application. I signed a declaration and power of attorney in connection with the Application in June of 2003.

I further declare that all statements made of my own knowledge are true and all statements made on information and belief are believed to be true.

Gregory W. Dake — Date: 6/19/2006

Jeffrey M. Franke — Date

Donald E. Johnson — Date: 6-19-2006

Shane M. Lardinois — Date: 6-19-2006

Michael S. Rollins — Date: 6-19-2006

David R. Woodham — Date

Disclosure RPS8-2002-0476

Prepared for and/or by an IBM Attorney - IBM Confidential

Created By Jeffrey Franke On 11/18/2002 04:21:13 PM MST
Last Modified By Michele M Fitzsimmons On 03/25/2003 01:59:55 PM MST

Required fields are marked with the asterisk (*) and must be filled in to complete the form.

***Title of disclosure (In English)**
BC+ Method of Handling Hot-Swap and Cold-Start of Service Processor Minimizing Disruption to Chassis Operation

Summary

Status		Final Decision (File)
Final Deadline		
Final Deadline Reason		
Docket Family		RPS9-2003-0045
*Processing Location		Raleigh - RPS
*Functional Area	select	(SERVER) SERVER
Attorney/Patent Professional		Martin McKinley/Raleigh/IBM
IDT Team	select	Chris Dombrowski/Raleigh/IBM Paul Benson/Raleigh/IBM Dave Challener/Raleigh/IBM Scott Dunham/Raleigh/IBM Rick Dayan/Raleigh/IBM Ben Grimes/Raleigh/IBM Howard Locker/Raleigh/IBM Jerry Pearce/Raleigh/IBM Joseph Lee/Raleigh/IBM David Rhoades/Raleigh/IBM Randy Springfield/Raleigh/IBM Eric Kern/Raleigh/IBM Don Kesner/Raleigh/IBM Ed Suffern/Raleigh/IBM John H Nicholson/Raleigh/IBM
Submitted Date		11/22/2002 11:22:23 AM MST
*Owning Division	select	SG
Incentive Program		
Lab		
*Technology Code		232
PVT Score		

Inventors with a Blue Pages entry
Inventors: Jeffrey Franke/Raleigh/IBM, Donald Johnson/Raleigh/IBM, Mike S Rollins/Raleigh/IBM, David R Woodham/Raleigh/IBM, Greg Dake/Raleigh/IBM@IBMUS, Shane Lardinois/Raleigh/IBM@IBMUS

RPS8-2002-0478 BC+ Method of ... lling Hot-Swap and Cold-Start of Service Processor ... imizing Disruption to Chassis Operation - continued

Inventor Name	Inventor Serial	Div/Dept	Inventor Phone	Manager Name
> Franke, Jeffery	4A8328	7T/LJZA	441-2859	Green, James R.
Johnson, Donald E. (Geno)	4A6353	7T/LJZA	444-5148	Green, James R.
Rollins, Michael S. (Mike)	955058	7T/PF9A	444-7197	Schreiber, Celia A.
Woodham, David R.	4A7486	7T/LJZA	441-1024	Green, James R.
Dake, Gregory	3A1159	7T/LJZA	441-8897	Green, James R.
Lardinois, Shane M.	845537	7T/LJZA	444-2178	Green, James R.

> denotes primary contact

Inventors without a Blue Pages entry

IDT Selection

Attorney/Patent Professional	Martin McKinley/Raleigh/IBM
IDT Team	Chris Dombrowski/Raleigh/IBM Paul Benson/Raleigh/IBM Dave Challener/Raleigh/IBM Scott Dunham/Raleigh/IBM Rick Dayan/Raleigh/IBM Ben Grimes/Raleigh/IBM Howard Locker/Raleigh/IBM Jerry Pearce/Raleigh/IBM Joseph Lee/Raleigh/IBM David Rhoades/Raleigh/IBM Randy Springfield/Raleigh/IBM Eric Kern/Raleigh/IBM Don Keener/Raleigh/IBM Ed Suffern/Raleigh/IBM John H Nicholson/Raleigh/IBM
Response Due to IP&L	12/22/2002

***Main Idea**

1. Background: What is the problem solved by your invention? Describe known solutions to this problem (if any). What are the drawbacks of such known solutions, or why is an additional solution required? Cite any relevant technical documents or references.

The invention solves a manageability problem in a chasis with multiple servers and various interconnect modules. Compatibility testing of servers with interconnect modules may yeild a set of components that may be powere on, that is different from those that are actually powered on or have permission to power on. In addition, if the system was already powered the system needs to be restored to its previous configuration. A manual solution exists, but it would bennificial to the IT operator to have this automated so that they may perform other tasks.

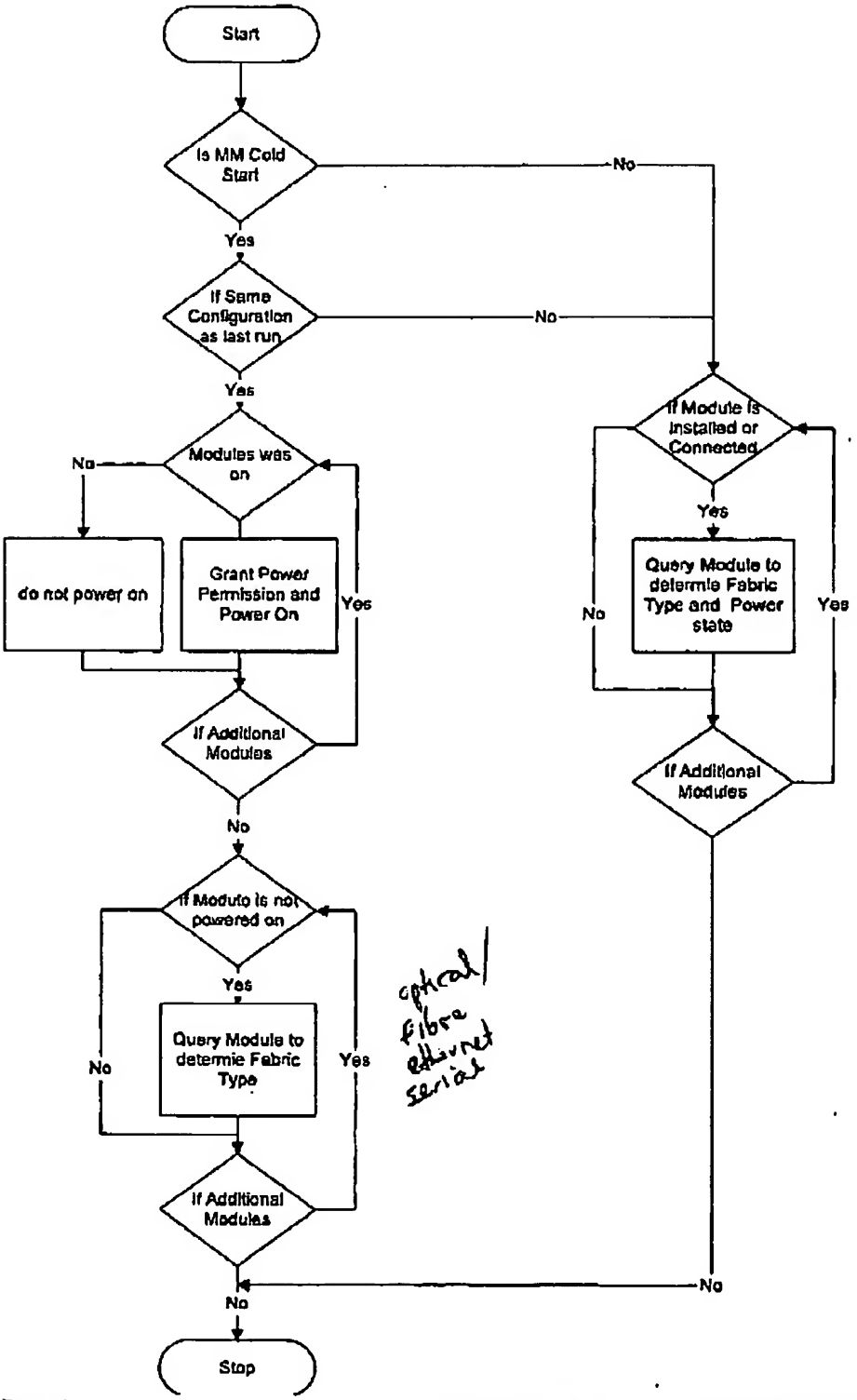
2. Summary of Invention: Briefly describe the core idea of your invention (saving the details for questions #3 below). Describe the advantage(s) of using your invention instead of the known solutions described above.

The invention seaks a method to restore the chassis components (servers and interconnect components) to prior states (on/off/allowed to power/not allowed to power on), however a hot swapped Management Module should not change the Power on states since there is an operator present. When a Service Processor (Management Module) is powered on it uses information regarding its own hot swap or cold

start status to interact with other components differently.

3. Description: Describe how your invention works, and how it could be implemented, using text, diagrams and flow charts as appropriate.

The management module (System Processor) must be able to dectect the difference between a hot swap and a cold start to determine if the system should have power restored or simply validated. After powering on, the Management Module determines if it has been hot-swapped or cold-started. On a system cold start the Management Module can restore power to each of the components that were on prior to the power failure. On a hot swap, of the Management Module Components that were off/on should remain off/on.


Start
Is MM Cold Start
No
Yes
If Same Configuration as last run
No
Yes
Modules was on
No
do not power on
Grant Power Permission and Power On
Yes
If Additional Modules
No
If Module is not powered on
Yes
Query Module to determie Fabric Type
No
Yes
If Additional Modules
No
If Module is installed or Connected
Yes
Query Module to determie Fabric Type and Power state
No
Yes
If Additional Modules
No
Stop
optical/ fibre ethernet serial

***Patent Value Tool**

* 1. Select the single most appropriate technology category for your invention from the following technologies list.
(232) PPM 200 Computer and Processor Architecture-232 Recovery
Comments
Are there any additional significant markets where the invention is likely to have impact?
○ Yes ● No

*2. Have you implemented the invention (e.g., made a prototype) or otherwise shown that it is workable?
● Yes ○ No

*3. Has the subject matter of the invention or a product incorporating the invention been offered for sale, or is it likely to be offered for sale, as part of an IBM product or service?
○ No known product plans within 2 years
○ Maybe; GA 1-2 years away
○ Yes; GA within 3-12 months
● Yes; GA within 3 months
○ Yes; product has been announced

What product?
BladeCenter

What is the significance of the invention within the product?
○ Improves general usability
● Enables a minor feature
○ Enables a major feature

What feature?
Enables a Hot-Swapp able Service Processor.

*4. Has the invention been commercially used (internally or externally) by IBM or another entity (e.g., included in or used to make products, or prototypes provided to a customer)?
○ Yes ● No

*5. In what type of product might a competitor include the invention?
Any replaceable service processor

What competitor(s) (indicate home country of such competitors if not United States)?
Dell, HP...

*6. How easily can the use of the invention by a third party be detected?
○ Undiscoverable; third party must admit use for IBM to know
○ Difficult; e.g.; with reverse engineering or examination of available code
○ With work; e.g.; using test cases; but not reverse engineering
● Easily; by running & viewing product operation
○ Trivally; without purchase of product; e.g.; by reading product literature

Please propose how a test would be performed and what test methods may be required:

on - continued

If not advertised, see if hot-swapping the service processor

*7. Is the invention applicable to a standard?
○ Yes ● No

*8. Have you, or any of the other inventors, submitted this invention disclosure or a similar invention disclosure previously?
○ Yes ● No

**9. Please list the invention disclosures (previously submitted or about to be submitted), products, patents, or publications that you and the other inventors feel are the most relevant to your invention (e.g., pertaining to the problem you are solving, including other solutions to the problem), be they from you or anyone else, or if not applicable, enter "None":
None

* 10. Was the invention made in the course of any activity that involved any other party, be it
- The government
- A customer (such as an RFQ)
- A development partner
- An alliance
- Any contract activity
- As part of a standards setting activity
- Other persons not employed by IBM

○ Yes ● No

*11. Have you ever disclosed your invention to anyone outside IBM, or do you plan to do so in the future?
○ Yes ● No

*12. If the invention relates to a product or service that is outside the scope of your business unit, please recommend IBM business unit(s), IBM location(s) or individual(s) within IBM that you think would provide a competent evaluation of your invention:
N/A

*PVT II

All of the questions below are required and must be answered in order to calculate a PVT Score

A.Threshold Questions

*1. **Operability** - Is there an identifiable operable embodiment of the invention (i.e., an embodiment that has been demonstrated or that would be reasonably expected to provide the benefits of the invention)?
● Yes ○ No

Reasons for above answer:

*2. **Novelty**- Are one or more concept(s) of the invention novel over what is already known in the literature, existing commercial products, patents, and earlier IBM invention disclosures?
● Yes ○ No

Reasons for above answer:

B.Valuation Questions

*1. Adequacy of Description:
○ Inadequate; invention unclear from description
○ Incomplete; essential features missing
○ Further clarification or implementation detail needed
● Clear and complete as is

State reason for answer:

*2. Technical contribution of invention:
○ None
● Minor addition to known technology
○ Significant addition to known technology
○ Major advance in technology
Reasons for above answer:

*3. Describe the problem solved/benefit provided and the implementation cost of the invention compared to existing or reasonably expected alternatives:
○ Minor problem/incremental benefit - significant implementation cost
○ Significant problem; substantial benefit - significant implementation cost
● Minor problem/incremental benefit - minor implementation cost
○ Significant problem/substantial benefit - minor implementation cost

*4. Are any alternatives to the invention available to those wishing to avoid its use?
○ Suitable alternatives available
● Alternatives have drawbacks
○ No feasible alternatives
Reasons for above answer:

*5. Describe the likelihood of use of the invention (answer each):
IBM's customers? ● Unlikely ○ Possible ○ Probable ○ Definite
IBM's suppliers/vendors? ○ Unlikely ● Possible ○ Probable ○ Definite
IBM's competitors? ○ Unlikely ● Possible ○ Probable ○ Definite
IBM? ○ Unlikely ● Possible ○ Probable ○ Definite
Reasons for above answer:

*6. What % of third party products in the technical field will likely contain the invention?
● < 25%
○ 25-50%
○ 50-75%
○ > 75%
Reasons for above answer:

*7. How long is the invention likely to be used in products by IBM or others?
○ < 5 years
● 5-10 years
○ 10-15 years
○ > 15 years
Reasons for above answer:

*8. How easily can use of the invention by a third party be detected?

- ○ Undiscoverable; third party must admit use for IBM to know
- ○ Difficult; e.g.; with reverse engineering or examination of available code
- ● With work; e.g.; using test cases; but not reverse engineering
- ○ Easily; by running & viewing product operation
- ○ Trivially; without purchase of product; e.g.; by reading product literature

Reasons for the above answer, including description of how use could be detected:

Evaluation

This evaluation was entered by **Amirah Scarborough/Raleigh/IBM** on **03/12/2003**

Team Evaluation
What is the team's evaluation of this disclosure? Search
Date rated : 03/12/2003
Evaluation Comments

Final Evaluation History	Who made the final evaluation	Final evaluation date
Search	Amirah Scarborough/Raleigh/IBM	3/12/2003

Search Information

Date sent: 03/17/2003	*Target completion date: 04/14/2003	Search Results Received date:
Who was the search sent to (This area is to designate a Local Searcher name or WAIPL): WAIPL		
*Search Type: ☒ Patentability ☐ Clearance ☐ Validity ☐ State of Art		
*Features to be searched: Main Idea of Disclosure		

Search Office Information

Target completion date: 04/14/2003	☐ Search has been delayed	Ship/Return date:
Search Conducted By Kunkle		
Comments		

Final Decision

This decision was entered by **Michele M Fitzsimmons/Raleigh/IBM** on **03/25/2003**

Decision: File	Status: N/A
PPM Area: 200 - Computer and Processor Architecture	Attorney Rating: 2
Date of Final Decision : 03/25/2003	

Additional filing information

Planned Filing date: 05/20/2003

Filing comments:

Additional decision comments

Final Decison History

Entered on 25-Mar-2003 by Michele M Fitzsimmons
File N/A 25-Mar-2003 Docket Family: RPS920030045

Post Disclosure Text & Drawings
To add additional information related to this disclosure once it has been submitted, click the action button below and a new document will be opened for you to enter the new information. To view existing post disclosure information, double-click on the item in the list below (if there has been additional information entered), and the document will open for you to view.

Date entered	Post disclosure information (comments and drawings)

Form Revised 09/01/02)